

ACCESS TO DIGITAL SKILLS

**Insights Paper 2:
Who is being left behind?
Which marginalised groups are
struggling to bridge the digital
divide?**

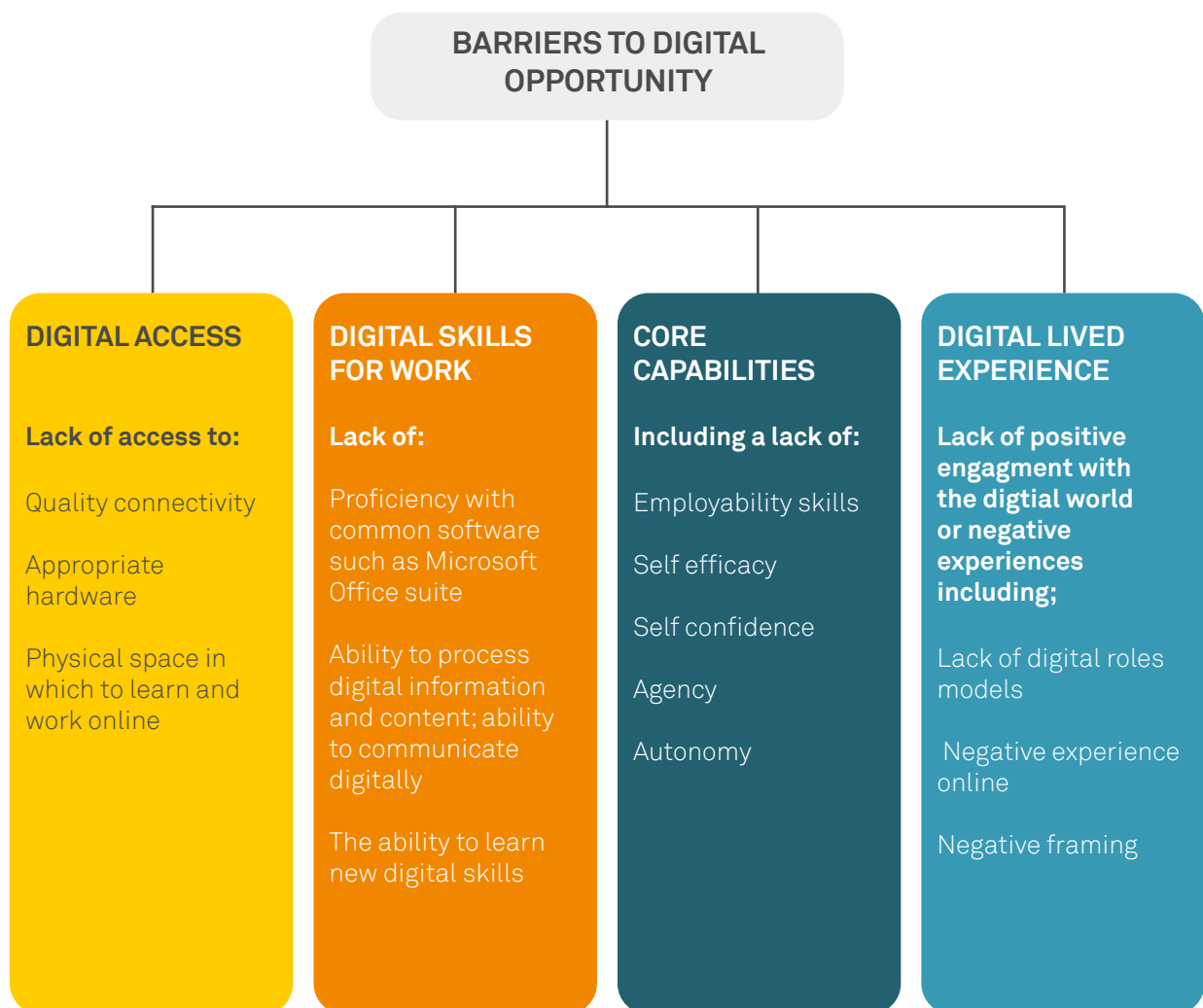
Catch22 and Nominet – April 2022



CONTEXT

This paper is the second in a series of four papers developed by Catch22 and Nominet to explore the barriers to digital skills and access for some of the most disadvantaged young people in the UK. These insights will inform recommendations, which will support Catch22 and Nominet in tackling systemic inequality, whilst directly responding to grassroots need.

This paper seeks to identify who is at the most significant risk of being left behind and which marginalised groups are prevented from developing the digital skills they need to thrive. We seek to understand better how issues with access to digital work skills further marginalise those most impacted by the barriers outlined in the first paper on access and digital work skills.



Subsequent papers will seek to build on the first two papers by exploring how we address these barriers and create opportunities, through the lens of young people supported by Catch22. Addressing this is critical in securing an equitable, digitally confident, and literate population.

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This paper shows how structural inequalities in society are mirrored and often magnified in digital realities. Role models and inspiration play a huge part in who sees themselves taking up digital skills or careers. This becomes a cycle - as the demographic who design digital services affects who ends up using them. So not only does diversity offer direct value to the tech industry, but if we don't address inclusiveness we can further deepen the balance of who has power.

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Amy O'Donnell – Senior Programme Manager, Nominet Social Impact

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Young people who face social disadvantage are more likely to face digital exclusion. Digital exclusion makes it harder for people to learn, connect, find work, and thrive. This reinforcing cycle means digital exclusion pushes people further onto the fringes of society.

Research like this shows the nuance behind the numbers; the genuine experience of real lives. This paper explores the intersectional links between social exclusion and digital exclusion, between poverty and digital poverty.

Digital access ignites opportunity; if we want to tackle societal inequality, we need to double down on bridging the digital divide.

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Kat Dixon, Director of Partnerships at Catch22

WHO IS BEING LEFT BEHIND? – AN OVERVIEW

This paper seeks to bring to life the voices of young people and delivery staff who are deeply affected by digital exclusion. We interviewed people who access and work in Catch22 services, including care leavers, those in contact or at risk of contact with the justice system, those in special educational settings and those in mainstream further educational settings, like colleges.

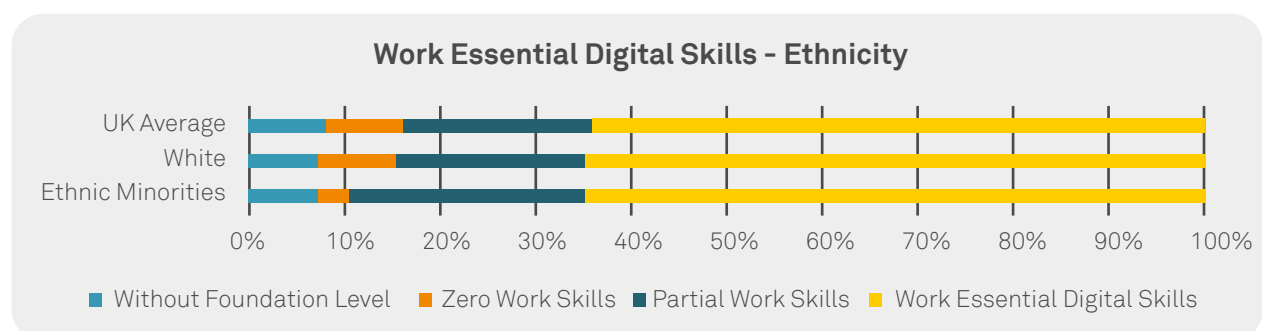
By speaking to the most marginalised young people in society, we seek to add nuance to macro demographic data, some of which we explored in our first paper. Macro data often speaks to broad demographic groups but sometimes misses the experience of those most at risk of being left behind.

Indeed, it was striking during our research that the people we interviewed were more often focussed on economic challenges (e.g. poverty), systemic social issues (e.g. gender stereotypes) and the nuances of personal circumstances (e.g. caring responsibilities), rather than the broad demographic groups (e.g. gender or ethnicity), which are represented in much of the macro data on digital skills.

The viewpoints found in our research offer insights into the reality for disadvantaged young people, which is sometimes not reflected in the macro data. Broad demographic groups interrelate with a wide range of socio-economic issues and are often compounded by an individual's personal circumstances. It is this intersectionality through which we can better understand the digital reality or lived experience of digital disadvantage.

As one example of this challenge, the macro data on ethnicity suggests that the levels of 'Digital Skills for Work' are almost the same for 'white' and 'ethnic minority' groups. However, when we explored how poverty affects the development of digital skills, we found that poverty significantly impacts digital access.

We also found that poverty levels are higher for people in households headed by someone of non-White ethnic groups – particularly those of Pakistani, Bangladeshi or Black ethnicity¹. **Therefore, the picture, when it comes to intersecting issues like poverty, is much more complex and nuanced.**



WHO IS BEING LEFT BEHIND? – AN OVERVIEW

Our interviewees almost unanimously argued that those living in poverty were at the most significant risk of being left behind. Reasons for being left behind include: not having meaningful, reliable and consistent digital access. These were often compounded by a lack of physical space, positive digital role models and lack of skills and career opportunities.

Poverty is just one factor that increases the risk of being left behind. Our research found that people who are particularly at risk include: people living in multiple occupancy households, who are in or leaving care, who are in contact (or at risk of contact) with the justice system, who lack digital role models, or have a disability or are neuro-diverse. These are not factors that exist in isolation, and indeed many relate also to poverty (either directly or indirectly) and each other.

Finally, we have found that where young people live affects their ability to develop digital skills. In addition to the insights provided by our primary research, we dug deeper and sought to explore the role geography plays in relation to disadvantage, particularly regarding the distribution of

Tech Hubs. From this, we can build informed assumptions about the presence of the tech sector in the UK, alongside increasingly diverse digital role models. This mapping shows that, despite the growth of Tech Hubs in the UK, many hot spot locations are not in rural and coastal areas of deprivation or regions of poor social mobility (as defined by the Social Mobility Commission's social mobility cold spots). This means that the benefits of these Tech Hubs are not always felt in areas that need them most.

In many respects, the core findings of this paper are unsurprising; that structural inequality plays through into the digital domain and, in turn, compounds existing disparities. Those most at risk of being left behind digitally are already at risk of social exclusion.

However, by presenting the views expressed in our research, we hope to highlight the extremity of the impact on those being left behind and how multiple, often interrelated, issues intersect to compound the disadvantage that marginalised communities already face.



A. POVERTY

Poverty and digital access are inextricably linked. We interviewed headteachers of alternative provision and special schools who expressed significant concern for children in their schools, for whom far more fundamental issues, such as hunger, eclipsed concerns about digital access. Many cited examples of young people for whom access to publicly funded hardware was made redundant by a total lack of functional Wi-Fi and, in some cases, even the electricity needed to charge devices.

Reliable access is also challenging for young people facing poverty. Throughout our focus groups and interviews, when asked who was left behind, respondents first cited those without reliable access. While some young people we interviewed did not personally struggle with digital access, almost all were able to cite examples from their peer group of young people who struggled to access the internet ‘some’ or ‘most’ of the time. Many had struggled for short defined periods because of a temporary change of circumstance.

“There is huge variation in the backgrounds of the kids that attend our school. Some have an iPad, others only have phones, often without data. We were giving out laptops to some kids and then realising they didn’t have the money for electricity at home. We’re talking about kids with no oven never mind Wi-Fi.”

- Head Teacher

Poverty and digital access are not static issues. Instead, they are issues that can impact intermittently and often suddenly, with significant consequences, often at inopportune moments in a young person’s education or search for employment. Our interview findings correlate with other research on digital poverty. Research from The Learning and Work Institute shows that one in five (21%) households from lower socio-economic groups with children have no access to an appropriate device. Over one in twenty (6%) have no access to the internet.ⁱⁱ

Poverty in the UK has an interconnected relationship with digital poverty. Poverty affects a significant percentage of the UK population; between 22% (14.5m) and 18% (11.7m), depending on which definitions you use.ⁱⁱⁱ

“The school has given some laptops to those who don’t have them at home for online class, but I would like to edit or do something like a creative course, but I can’t because it’s sort of slow, and it is a small handy laptop and buying more storage is expensive.”

- Young Person

Child poverty data suggests that approximately 4.2 million children in the UK live in poverty. Of the 4.2 million, 1.8 million are living in deep poverty (defined as being in poverty for more than two years), and more than half a million children have been destitute (defined as going without the essentials we all need to eat, stay warm and dry, and keep clean) at some point in the most recent year’s data. Whilst it is possible that some of the 4.2 million children living in poverty do not suffer from a lack of digital access, the definition of destitute poverty is mirrored in the description headteachers

gave in our interviews of the challenges faced by a small but significant, minority of children in their schools.^{iv}

Some digital exclusion is less extreme, but still impactful. At the less extreme end of the spectrum, many interviewees highlighted poverty as a factor which limited their access ‘some of the time’. These young people have digital access but it is not consistent, creating uncertainty and often hampering their progression at critical moments in their education or search for employment.

National data points to groups who may be most at risk of digital exclusion. A further signifier, in the poverty data, as to which young people might be most at risk may also be found in the national data, which suggests that higher rates of poverty exist in the following key groups; people in families not containing full-time workers, people in lone-parent families, people in families having a disabled person, people in families with three or more children, people in rented accommodation, and people in households headed by someone from a non-White ethnic group, particularly those of Pakistani, Bangladeshi or Black ethnicity.^v Many of these groups were highlighted separately in our research.

“Getting a computer that works is crucial. A lot of the computers are on their last legs and are often broken.”

– Youth Group Leader

The impacts of poverty are compounded by a poverty premium on access to data. For example, a quarter of all mobile subscriptions are pay-as-you-go customers, often costing considerably more in the long run. The Good Things Foundation reported that vulnerable groups, such as asylum seekers and refugees and households living in poverty, are hit hardest by more expensive pay-as-you-go tariffs because they cannot afford

Wi-Fi at home or a fixed-term contract. To quote Cambridge Centre for Housing and Planning Research, University of Cambridge, 2021: “digital exclusion is yet another manifestation of the profound inequality which casts its shadow over the UK”.

Inflationary pressures exacerbate these challenges. The Bank of England expects inflation to rise to over 7% by spring 2022, and the conflict in Ukraine is set to drive energy prices even higher. This paints a worrying picture for the year ahead as many of those we interviewed spoke of digital access, particularly with regard to Wi-Fi, as something they often struggle to budget currently.

Despite the prominence that our interviewers gave poverty, there is still widespread disagreement on the scale of the issue. As highlighted above, a lack of data on the link between poverty and digital opportunity means that the problem is still poorly understood, and the nuance of those most affected is missed.

As a result, the relationship between poverty and digital opportunity is often viewed simplistically through the lens of digital access. As our research shows, this perspective misses the complex web of interrelated issues that often interact to compound fundamental access issues. Our research suggests that the impact of poverty is fluid and capable of impacting young people one day but not the next.

As the cost-of-living crisis deepens, the findings of this research illustrate the need for policy makers to consider the ways in which digital poverty interacts with poverty itself. Tackling digital poverty and creating consistent access may be a key touchstone in tackling wider issues of poverty in the UK.

B. LACK OF PHYSICAL SPACE

Lack of physical space is a crucial barrier to digital access. In our interviews, teachers and young people regularly referred to the challenges of accessing space to digitally learn or work. This may be having the physical space to work or needing to share devices or broadband. This challenge is exacerbated in households with high numbers of occupants. People in lower-income households are more likely to be in overcrowded accommodation than those in higher-income households^{vi}. In this way, digital poverty and poverty interact; it is harder to find space and data to learn or work in lower-income households.

“My home is not really great – it’s difficult to find a space to work. I’m better off working at college than at home but college isn’t open all the time.”

- Young Person

Interviewees often cited that a lack of community access compounded the impact of a lack of meaningful access at home. We heard how young people rely on school, colleges, and training providers to access programmes where a laptop or tablet is needed. This reliance on educational and training settings for meaningful access is particularly concerning when viewed in the context of those not in education, employment, or training. People who are already often a long way from the jobs market, face the additional challenge of lacking access to the tools needed to find work.

“In places where young people can access the internet, like the library, young people are often seen as a problem not a potential user. When you couple this with many places reducing opening hours due to budget constraints and some of the broader challenges presented covid, it really is very difficult for young people to access the internet beyond their phone or outside the home.”

- Catch22 Project Manager

Some interviewees said they were aware of facilities in the local community, like libraries. However, many of the young people, teachers, and delivery staff we interviewed reported that young people do not feel welcome and, in some cases, were prevented access to these facilities. Given that access is such a hurdle for digital skills, this represents another barrier to digital skills for those who need it most.

“I learn how to do things with office online but if you don’t have access how do you do that?”

- Young Person

Our interviews indicate that young people would highly value a physical space with reliable connectivity, professional software, and the devices they require to learn and find employment. Whilst it does not address the root cause of the challenges around physical space that result from broader systemic issues, the provision of such spaces would be a temporary solution to ensure that disadvantaged young people were not further marginalised by their inability to access the tools they need to progress, in an environment that is conducive to progression.

C. CARE EXPERIENCE

“The authorities gave a laptop but expect us to know how to use it, with extremely basic functionality and lots of restrictions. It is essentially pointless.”

- Care Experienced Young Person

Care experienced young people are a group at significant risk of being left behind. Our interviews suggest that care experienced young people often don't have the appropriate devices, Wi-Fi access or support to develop digital skills. This directly impacts their ability to undertake training and find employment.

“You also don't have word so couldn't create documents and young people couldn't do college stuff or CVs. You couldn't even make your laptop your own. There was an unknown Admin so I couldn't set a password to keep it secure or change the settings.”

- Care Experienced Young Person

Many of the young people we spoke to have access to hardware, often in the form of leant laptops from the Department of Education (some through the government scheme which distributed 1.95 million laptops). However, the restrictions on these devices meant many of our interviewees had very limited functionality and lacked access to essential software such as Microsoft Office. Furthermore, many spoke of issues with using key communication software and apps, including the inability to add Zoom or Gmail.

“When you can't connect to people you know because you don't have the money it can make you lonely and impact your mental health – sometimes I think it was better before we all had phones and things.”

- Care Experienced Young Person

Care leavers we interviewed highlighted the challenges of a world in which job interviews and applications are largely online. Many referenced how they and their peers had to resort to using phones to apply and undertake interviews. This presents a real challenge, as many job application sites and forms are often not mobile optimised.

“You're only going to get a job these days if you know how to use a computer, but we're not taught how to use one.”

- Care Experienced Young Person

One interviewee had to borrow her boyfriend's laptop and teach herself to use Teams to avoid having to use her phone for an interview. She pointed out that others in her peer group might not have been either able to borrow a laptop at short notice or teach themselves to use meeting software like Teams.

Our first paper highlighted the impact of the lack of digital role models. This affects a young person's ability to see themselves ever developing the necessary skills. And it was clear from the interviews for this second paper that this was a significant barrier to developing digital skills, with interviewees suggesting that Personal Adviser and Social Workers were often too busy or not equipped to support them.

“If you're not taught it at school or through your Foster carers, then there no one else for us as we don't always have parents to support after. It's all on us from there.”

- Care Experienced Young Person

Young carers are also impacted by digital poverty. Interviewees reported that the lack of digital access can leave young people feeling isolated and disconnected

from support networks, turning potentially positive opportunities presented by technology into negative experiences. This, they suggested, can tarnish young people's relationship with digital technology as the lack of consistent, meaningful access is a source of considerable frustration.

"You're only going to get a job these days if you know how to use a computer, but we're not taught how to use one."

- Care Experienced Young Person

Lack of access to physical spaces is important for care leavers too. When Wi-Fi is too expensive to have at home, young people are seeking connection in public locations, like libraries, but opening hours significantly limit access, and costs pervade (e.g. printing in libraries costs 20p a sheet). This is especially challenging if a young person already has a job, as these spaces are often shut after work hours.

"Through COVID and still for some companies now, they are still interviewing online. So with no Wi-Fi or laptop you can not apply or attend for an interview."

- Care Experienced Young Person

Access to devices is similarly a key issue for care leavers. More than any other group, the research we undertook with care leavers highlighted the difference between access to hardware and meaningful, reliable digital access.

Whilst it is laudable that the UK government has taken steps to provide laptops and Chromebooks to some young carers, these must have the functionality to enable access

to standard productivity software. Young people also need support to develop skills to use them.

Given the evident existing pressures on Personal Advisers and Social Workers, perhaps specialist roles could support this work, ensuring that Local Authorities move digital inclusion from a 'nice-to-have' to crucial for young people to develop skills, access and to gain employment.

Without this support and amendments to the restrictions placed on technology provided to care leavers, there is a significant risk that a generation of care leavers will miss out on the opportunities presented by digital, and will be locked out from many training and employment opportunities.

D. EXPERIENCE IN THE JUSTICE SYSTEM

For young people in contact with the justice system, meaningful access is a major challenge. In some cases, these challenges related to the young person being in a custodial setting. However, our interviews showed that, even after release, digital access beyond a phone was a serious barrier.

“Phones are a massive limitation for services. Often the only tool they can access. Most the people they work with don’t have tablets let alone laptops. Most of them wouldn’t go to a library to access digital devices.”

- Catch22 Justice Project Worker

Physical hubs can offer digital access through devices and free Wi-Fi. However, many young people in contact with the justice system have limited ability to travel because of the geographical boundaries placed on them, for example, if they have had gang affiliations. These young people, interviewees suggested, were often isolated without any meaningful prospect of access.

“Getting hold of digital resources/ infrastructure is a challenge. They got hold of some devices through Catch22 but hard to supply them en masse.”

- Catch22 Justice Project Worker

“A lot of people haven’t experienced positive role models online. Therefore, something they can’t relate to, they won’t take any interest in doing it.”

- Catch22 Justice Project Worker

In custodial settings, interviewees highlighted limited access to digital

resources and training as a significant issue. They suggested that custodial settings represented an opportunity to learn new skills while ‘passing the time’ and supporting parole hearings. Catch22’s Code4000 programme illustrates this, training prisoners in computer programming and coding in HMP Holme House, HMP Wandsworth, and HMP Humber. However, the broader opportunity for digital access and training programmes is often missed, favouring targeted training in a specific area, such as coding.

“Have to be careful about where to meet the young person and support them due to gang culture etc. This makes it harder to access/ support people because of geographical barriers.”

- Catch22 Justice Project Worker

Workers supporting young people coming out of the justice system suggested that the young people they work with haven’t experienced digital positive role models. This made pursuing opportunities for digital skills less appealing. Where young people coming out of the justice system had engaged with digital skills, methods included services’ success in creating relatable links by tailoring digital engagements with applied interests, such as music. Interviewees felt more could be done to highlight engaging examples of more diverse digital role models, for instance Jamal Edwards.

“Jamal Edwards was the biggest role model of our times for young people. Everything he did was digital, and deeply rooted in where their interests lie.”

- Catch22 Justice Project Worker

This lack of connection with digital opportunity was often complicated by negative relationships with social media and applications. Interviewees told us that, for many, social media became a conduit for bullying, threats of violence and other negative experiences, particularly exacerbated by the pandemic. Young people suggested this impacted their relationship with digital technology and made the acquisition of digital skills even less appealing.

role models.

The research suggests that digital skills development needs to be a fundamental part of rehabilitation. Young people entering the criminal justice system are more severely impacted by social disadvantage. When they are pushed to serve a sentence with no engagement in the digital world, this decreases their chances of rehabilitation and ability to thrive on release. Better access to digital skills in custody and in the community would support rehabilitation and create a bridge for young people to thrive in society.

“Lots of people hate the digital world. It marginalises already marginalised communities and there are lot of issues with threatening behaviour which become a problem in the real ‘world.’

- Catch22 Justice Project Worker

All these issues are compounded by the fact that young people experiencing the justice system are more likely to have missed school learning and lessons, where digital skills could be enhanced and therefore are more likely to rely on informal peer or self-teaching, increasing the importance of digital

E. DIGITAL ROLE MODELS AND FORMAL SUPPORT

A young person's digital lived experience, and the role models they interact with play a crucial part in reducing digital disadvantage. If you grow up in households from lower socio-economic backgrounds, are in the justice system or have experience of care, the evidence suggests you are less likely to have digital role models in the home.

"The generational thing I think is really important and that's often why when you're looking at a national picture, young people get missed off access points because they're all digital natives. They can do it. They know better than the teachers. They've got a smartphone and that's not the same as being able to apply for a job, opening up a laptop using workplace software."

- Catch22 School Headteacher

In our first paper, we defined digital role models as teachers, carers and parents who use digital devices for work regularly. Our research for this paper suggests this issue is compounded by not receiving meaningful Information Communication Technology (ICT) education and a need for self-teaching.

Many young people leave school with limited digital skills. Concerningly, most of our respondents in our interviews said that they left school without the basic technical skills with standard professional software like Microsoft Office, which they might need for the world of work. Throughout the research, many pointed to secondary school as a critical moment for developing skills. After that, opportunities to develop these skills in formal structures were limited.

"For me, this needs to happen in school. Being better prepared earlier, would hopefully remove barriers earlier or losing young people at 16 and then they don't know how to re-access support. Many don't have role models with digital skills."

- Catch22 Employability Manager

These interviews suggest that young people who do not receive a meaningful ICT education at secondary school and lack positive digital role models or reasonable access to the internet may be locked out.

"There are lots of online lessons out there to support YP's to upskill, however they've confused as to how to access, what the best ones are, are if they never have a chance to put it into practice there isn't anything to cement that learning."

- Catch22 Employability Manager

Many young people teach themselves digital skills. Interviewees spoke about the need to self-teach digital skills that they hadn't gained during school, particularly when it came to writing CVs and applying for jobs. The 2021 Nominet Digital Youth Index reinforces this, showing that young people who are not in any form of education, employment or training are far more likely to be teaching themselves digital skills (73%).

Self-teaching presents another compounding challenge. Regardless of their background, young people need self-belief and developed cognitive skills to self-teach digital skills. But given that self-efficacy is shown to have been determined by the educational, social, and labour market opportunities they experience, young people from disadvantaged backgrounds start

further back. As a result, young people with negative education, social and labour market experiences are likely to struggle to self-teach digital skills. They are more likely to fall even further behind.

Digital role models, especially in the home, are key. Interviewees regularly spoke of the challenges of not having digital role models within the home and the importance of having someone you can seek support from. This presents another major challenge, as the data suggests that if you are growing up in households of lower social grades, you are less likely to have digital role models in the home to learn from.

To illustrate this, data shows that only 42% of adults from socio-economic grade DE (which includes semi-skilled and unskilled manual workers; casual and lowest grade workers and those unemployed with state benefits only) possessed digital skills for work, whilst 76% of adults from socio-economic group AB (which includes higher & intermediate managerial, administrative and professional occupations) possess digital skills for work.

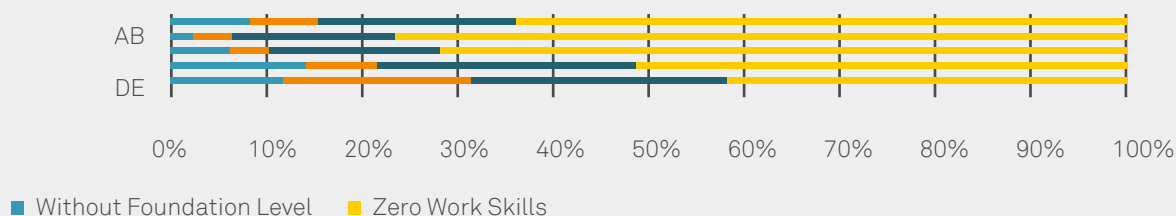
Our research suggests that it is critical that young people are provided with effective ICT education at school. This would help

mitigate the impact that a lack of digital role models has on disadvantaged young people. Without this foundation, the effects of a lack of role models are amplified as young people are required to self-teach, which is harder for young people from disadvantaged backgrounds.

Adequate ICT provision would be a positive step forward, but it will not be enough. To address the lack of digital role models in the home, we need to take the same approach as social mobility charities have taken in providing professional role models to young people from disadvantaged backgrounds. Whilst this will never entirely redress the balance, evidence from existing professional mentoring programmes suggests it would go some way to ensuring disadvantaged young people are not left behind.

Effective education in the future will recognise digital skills as fundamental as English and Maths, with suitable role models and self-teaching support given to address social inequality.

Work Essential Digital Skills - Social Grade



F. LOCATION

A key element of digital disadvantage and lack of digital role models is based on location. Young people and schools in rural and coastal areas have less access to digital opportunity and are less likely to have parents, carers and teachers with advanced digital knowledge. This again represents a broader indication of social disadvantage with children from remote areas (small towns and rural areas) and Coastal Local Authority District areas consistently underperforming their urban and more accessible rural area peers.

The Government emphasise the development of Tech Hubs (areas with a high density of tech unicorns, tech-start-ups, tech jobs and ‘future-corns’- fast-growing tech companies) outside the main urban areas as an illustration of expanding digital opportunities for young people.

Yet, the opportunities of Tech Hubs to share experience among those who need it most seem to have not been realised. None of the young people we spoke to had heard from or had experience with a tech business or employer.

Digital skills are sensibly seen as a critical lever for social mobility^{vii}. Yet, our mapping research for this paper shows that this opportunity is rarely realised – the geographies of Tech Hubs and disadvantage rarely align.

- Tech Hubs – defined as areas with a high density of tech unicorns^{viii}, tech-startups, tech jobs and ‘future-corns’^{ix}
- The UK’s social mobility cold spots where young people from disadvantaged backgrounds outcomes are lower.

Social Mobility cold spots offer an insight into the impact that employability programmes and opportunities for those with barriers to work can have.

So, while the tech hubs could offer schools, colleges and young people opportunities to understand and learn from the centres of technical excellence in the UK, those centres are not near those who need it most.



This creates two reinforcing problems for the UK: the digital sector struggles to find skilled staff for employers; and the social inequality gap for those left behind widens. The correlation between poverty and digital skills is detailed above, with our mapping and qualitative research suggesting the opportunity for digital skills knowledge, employment, and role models are significantly lower, depending on where you are born. We believe this offers an opportunity for more outreach by tech hubs

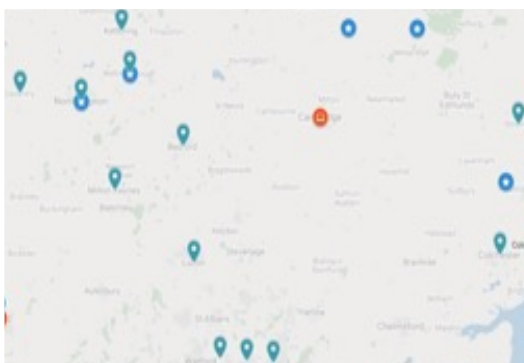
and employers to rural and coastal areas building both digital skills and demonstrating the opportunity that digital skills provide for employment and social mobility.

“The UK is very good at rearing and cultivating start-ups and scale-ups into successful global companies right across the UK. A true network of digital excellence is emerging right across the country through entrepreneurship, driving new job and wealth creation.”

- Gerard Grech, Chief Executive of Tech Nation

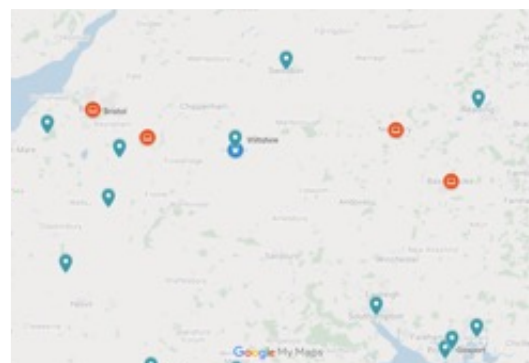
Regional Case Study - East of England

Cambridge (in the centre of the map) is now the top regional tech hub in the UK, home to start-ups such as GeoSpock, Riverlane, Fetch AI and Healx and where digital giants ARM and Darktrace are based. While its value to employment and digital skills in the local area is irrefutable, the areas where young people are most disadvantaged (as evidenced here by deprivation indices and social mobility cold spots) are at least an hour away, and poor public transport links do not afford significant opportunities to those already left behind.



Regional Case Study - South West

Similarly, the growing tech hubs of Bristol, Bath, Newbury and Basingstoke illustrate further regional hubs of digital knowledge and employment. To highlight this, we spoke to Beth Woodward, Deputy Headteacher at The Burton Academy in Torbay, a coastal area of employment deprivation. “We’re coastal, in an area of deprivation and are also surrounded by a very rural landscape. Attendance drops off around harvest time, and there is not high digital use among parents and carers. The incentives for parents to engage with technology is both a generational and geographical issue to overcome.”



G. NEURODIVERSITY & DISABILITY

The digital world presents exciting and innovative ways for people to thrive and ensure an inclusive and diverse workforce. Research suggests this needs to be catered to everyone's needs, through improving and adapting digital devices and opportunities to learn digital skills for those who have disabilities or are neurodiverse. If we are to develop truly inclusive solutions, then all individuals need the digital skills to be a part of creating these very solutions.

"Biggest barrier is finding extra support for learning digital skills. E.g., those with the learning/cognitive difficulties."

- Catch22 Justice Project Worker

Opportunities to develop digital skills are not inclusive for those with disabilities.

'An inclusive digital economy for people with disabilities' report within Disability Hub Europe, co-funded by the European Social Fund, analysed how access to digital tools and digital skills training influences the possibility of people with disabilities to thrive in the digital labour market. Their conclusion starts with ensuring accessibility for people with disabilities, with a strong focus in the report on the need for inclusive and accessible technologies and training to be made available to all. This aspiration is not yet realised, with people with a disability 35% less likely to have Essential Digital Skills for Life.

"Those with lower cognitive ability often struggle to use the hardware, they often can't access the help they need and are less able to utilize that support."

- Catch22 Employability Manager

"I really struggle sometimes that the microphone on things doesn't recognise your voice with it very annoying. Everything you can do should have a disability friendly part and make it on everything. It can be awful sometimes and puts me off. Also, I would like it to just be accessible not a special thing you have to draw attention to yourself using it. I don't want to be treated different."

- Young person, aged 18

Using current, suitable technology is more important to people with disabilities or neurodiversity.

Young people across our interviews talked of the challenges of using certain software and technology for neuro-diverse young people. These challenges were made harder by older technology, often provided by public bodies. The challenges of using slow and old technology for those who already struggled to focus in an academic or professional setting were highlighted several times.

Self-searching can be more challenging for neuro-diverse young people.

Many highlighted the challenges for young neuro-diverse people trying to acquire new digital skills, where self-teaching was the only feasible way to develop these skills. Interviewees suggested this often left young people feeling frustrated and isolated. This may play some role in the data, which shows our dependence on digital technology during the pandemic, with 75% of people with a learning disability saying their wellbeing had been affected compared with 37% of non-disabled people.

CONCLUSION

In seeking to understand better who is being most left behind, we found that economic challenges, systemic social issues, and personal circumstances are more influential than broad demographic groups represented in much of the data published on digital skills.

Our interviewees all highlighted those living in poverty as those most at risk of being left behind. Young people cannot build their digital skills without reliable access to devices beyond a smartphone, inexpensive data, and quiet space to learn or use digital skills. By the time they look for work, they are already behind.

The scale of digital poverty and the way we view poverty data skews the complexity of digital disadvantage. Access is one hurdle, but you also need the proper training, experience, and role models for this to be meaningful.

Yet opportunities to build skills early at school and through the care system or rehabilitation are too often missed. Disadvantaged young people should not have to rely on self-teaching for such a fundamental life skill.

We hope that by presenting our research, we can highlight the extremity of the impact on those being left behind and how multiple, often interrelated, issues intersect to compound the disadvantage that marginalised communities already face. Digital skills are an urgent need, which could help break the cycle of poverty and isolation in the UK if addressed.

METHODOLOGY

The research for this paper conducted for this paper was predominately primary qualitative insight gained from in-depth group discussions on digital skills among those with first-hand experience – as young people themselves or by working closely with young people as teachers, Catch22 managers or youth workers.

All research was undertaken by Charlotte Turner and Mark Newby of Bean Research Ltd. Bean Research works with businesses and charities to understand social challenges & opportunities and evaluate the difference made.

For this second paper, Bean conducted interviews and focus groups among young people and those working with Catch22 to support young people at risk of exclusion or on employability programmes in January and February 2022. These included young people at college run by Catch22, the Youth Board at The Hive, Camden; and a group

of headteachers across the UK who form the Education Senior Leadership Team at Catch22. An online questionnaire was also distributed across the organisation to collect more insights from young people and programme managers. Many of the quotes in this report are from those questionnaires, and focus groups, as well as from the Digital Youth Index undertaken by Nominet.

Bean Research then undertook some detailed mapping, to research the relationship between the location of UK's Tech Hubs and social mobility coldspots and areas of multiple deprivation. In addition, more desk research was conducted to verify findings.

For more details of the methodology, please contact charlotte@beanresearch.co.uk

DIGITAL SKILLS DEFINITION:

'Digital skills' is an incredibly broad term covering a vast range of competencies - everything from the ability to turn on a laptop through to advanced computer programming. This creates significant challenges in understanding the opportunities and risks those digital skills present to disadvantaged young people. This is largely due to confusion in language as similar terms are often used by young people and service providers with widely differing meanings.

As our papers focus specifically on digital barriers to employment, we have chosen to divide digital skills into two main categories; 'Digital Skills for Work', broadly the basic digital skills increasingly required for the vast majority jobs, and 'Advanced Digital Skills', those necessary to secure employment in the tech or Information Technology (IT) sector. Further exploration of the definitions we have chosen to use for this research series can be found in the first paper here.

REFERENCES

ⁱUK Poverty 202/21 – Joseph Rowntree Foundation - <https://www.jrf.org.uk/report/uk-pov-erty-2020-21>

ⁱⁱ<https://learningandwork.org.uk/resources/research-and-reports/disconnected-exploring-the-digital-skills-gap/>

ⁱⁱⁱPoverty in the UK: statistics, The House of Commons Library, 2021 <https://researchbriefings.files.parliament.uk/documents/SN07096/SN07096.pdf>

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^vUK Poverty 202/21 – Joseph Rowntree Foundation - <https://www.jrf.org.uk/report/uk-pov-erty-2020-21>

^{vi}<https://www.health.org.uk/news-and-comment/charts-and-infographics/overcrowding-is-highest-for-those-with-low-incomes>

^{vii}[Cite SMC State of the Nation report].

^{viii}Futurecorns are defined as ‘A company valued at \$250m-\$800m, and therefore with realistic potential to achieve unicorn status in the near future’. TechNation Glossary <https://technation.io/resources/scaleup-glossary/>

^{ix}Coined by investor Aileen Lee in 2013, a unicorn is a privately-owned tech company valued at over a billion dollars, so called for their mythical rarity. TechNation Glossary <https://technation.io/resources/scaleup-glossary/>



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